User Manual

PWS-770

Semi-Rugged Tablet PC

Preliminary

ADVANTECH

Enabling an Intelligent Planet

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Declaration of Conformity

CE Conformity Statement

Radio products with the CE alert marking comply with the R&TTE Directive (1999/5/EC) issued by the Commission of the European Community. Compliance with this directive implies conformity to the following European Norms (in brackets are the equivalent international standards)

- EN 60950-1 (IEC60950-1) - Product Safety
- EN 300 328 Technical requirement for radio equipment
- ET S301 489 General EMC requirements for radio equipment

Products that contain the radio transmitter are labeled with CE alert marking and may also carry the CE logo.

FCC Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference;
2. This device must accept any interference received, including interference that may cause undesired operation.

Caution! *Exposure to Radio Frequency Radiation.*

The radiated output of this device is far below the FCC radio frequency exposure limits. Nevertheless, the device shall be used in such a manner that the potential for human contact during normal operation is minimized. When connecting an external antenna to the device, the antenna shall be placed in such a manner to minimize the potential for human contact during normal operation. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm (8inches) during normal operation.

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This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced computer technician for help

Technical Support and Assistance

1. Visit the Advantech website at http://support.advantech.com where you can find the latest information about the product.
2. Contact your distributor, sales representative, or Advantech's customer service center for technical support if you need additional assistance. Please have the following information ready before you call:
   - Product name and serial number
   - Description of your peripheral attachments
   - Description of your software (operating system, version, application software, etc.)
   - A complete description of the problem
   - The exact wording of any error messages

Safety Instructions

Use the following safety guidelines to help protect yourself and PWS-770.

- Do not attempt to service the PWS-770 yourself. Always follow installation instructions closely.
- Be sure that nothing rests on the AC adapter's power cable and that the cable is not located where it can be tripped over or stepped on.
- Do not cover the AC adaptor with papers or other items that will reduce cooling; also, do not use the AC adapter while it is inside a carrying case.
- Use only the AC adapter, power cord, and batteries that are approved for use with this PWS-770. Use of another type of battery or AC adapter may cause risk of fire or explosion.
- If you use an extension cable with the AC adapter, ensure that the total ampere rating of the products plugged in to the extension cable does not exceed the ampere rating of the extension cable.
- When you move the PWS-770 between environments with very different temperature and/ore humidity ranges, condensation may form on or within the PWS-770. To avoid damaging the PWS-770, allow sufficient time for the moisture to evaporate before using the PWS-770.
- When you disconnect a cable, pull on its connector or on its strain relief loop, not on the cable itself. As you pull out the connector, keep it evenly aligned to avoid bending any connector pins. Also, before you connect a cable make sure both connectors are correctly oriented and aligned.

CAUTION: To reduce the risk of fire, use only No.26 AWG or larger (e.g., 24 AWG) UL Listed or CSA Certified Telecommunication Line Cord.

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Battery Safety

RTC Battery Caution

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

- Do not place the battery incorrectly as this may cause danger of explosion.
- Dispose of used batteries according to the manufacturer's instructions.
- Do not dispose of batteries in a fire. They may explode. Check with local authorities for disposal instructions.

Battery Pack Caution

- The battery used in this device may present a risk of fire or chemical burn if mistreated. Do no disassemble, heat above 50°„C, or incinerate. Replace internal battery with 46-12381-030 Li-ion 11.1V 1900mAh and second battery with Li-ion 11.1V 3800mA Cell Panasonic SMP only. Use of another battery may present a risk of fire or explosion.
- Dispose of used batteries according to local disposal regulations. Keep away from children. Do not disassemble and do not dispose of in a fire.

Battery Charge Notice

It is important to consider the environment temperature whenever you are charging the Lithium-Ion battery pack. The process is more efficient at normal room temperature or slightly cooler. It is essential that you charge batteries within the stated range of 0°C to 50°C. Charging batteries outside of the specified range could damage the batteries and shorten their charging life cycle.

Storage and Safety Notice

Although charge Lithium-Ion batteries may be left unused for several months, their capacity may be depleted due to the build up of internal resistance. If this happens they will require recharging prior to use. Lithium-Ion batteries may be stored at temperatures between -20°C to 50°C, however they may be depleted more rapidly at the high end of this range. It is recommended to store batteries within normal room temperature ranges.

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Chapter 1

Rugged and Ready to Go

Congratulations on your purchase of the PWS-770 Semi-Rugged Tablet PC. This product combines rugged design with reliable performance and powerful functionality to best suit all your needs, in a wide range of working conditions. This user manual outlines all you need to know to set up and use your PWS-770. If you have any further questions or queries, contact our technical support team via our website:

http://www.advantech.com.tw/

1.1 Symbols Used in this Manual

Warning! *Denotes information that must be observed.*

Failure to do so may result in personal harm or damage to the product.

Note! *Denotes information that must be observed.*

Failure to do so may result in personal harm or damage to the product.

1.2 Product Features

- Rugged design
- High-performance Intel® Atom® processor
- Built-in WLAN/Bluetooth/GPS/WWAN functions
- Durable, shock-resistant magnesium alloy housing
- IP54 sealing & built to withstand a 3 ft drop
- 10.4” Sunlight option / XGA TFT LCD
- I/O ports for expansion
- Long battery life

1.3 Package Contents

Ensure all the following items are present when you receive your PWS-770. If any of these items are missing, contact your vendor immediately.

Note! *Screens used in this manual are for illustrative purposes only. Actual screens may vary depending on your product version.? PWS-770 Tablet PC.*

- AC power adaptor
- Power cord
- Rubber bumpers
- Second battery option
- CD

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1.4 Optional Accessories

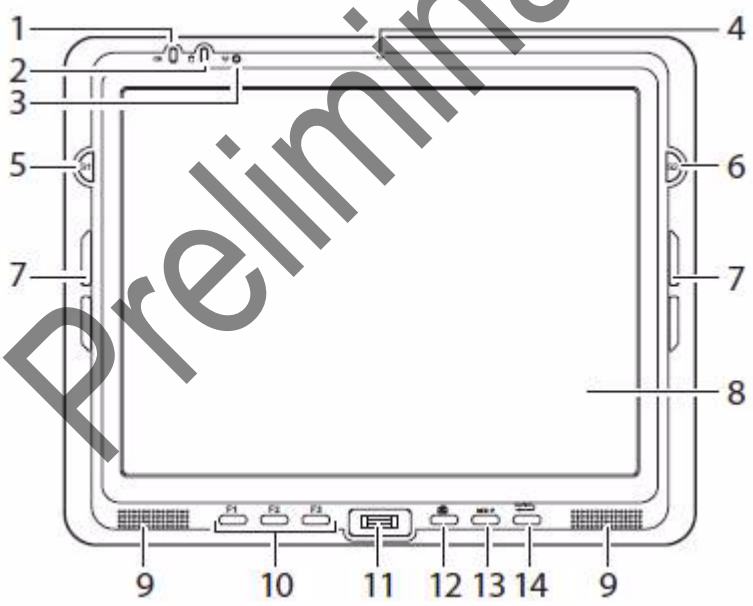
- Desk docking
- External battery
- Handstrap
- Shoulderstrap
- Bumper
- Vesa Mount

1.5 Optional Modules

- 1D / 2D barcode scanner
- MSR (1+2+3 track card reader)
- RFID 13.56M
- WWAN GPRS/3G/3.5G
- GPS module

1.6 Exploring the PWS-770

1.6.1 Front View



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No.	Component
1	Power LED ■ Off: Power off ■ Solid green: Power on / When in power off mode, lights green when charging. ■ Blinking green: AC power on and the battery is charging
2	HDD LED ■ Lights green to indicate hard disk drive activity.
3	WLAN LED ■ Off: No RF signal / No LAN connection ■ Solid green: WLAN connected ■ Blinking green: TX/RX transmission
4	Microphone
5	S1 / Brightness button ■ Functions as a barcode switch key when a barcode scanner is connected, otherwise, can be assigned as a function key (F4). ■ When mode is enabled, press to decrease brightness.
6	S2 / Brightness button ■ Can be assigned as a function key (F5). ■ When mode is enabled, press to increase brightness.
7	Rubber bumper indents ■ Lock the rubber bumpers
8	Touch-sensitive display
9	Speakers
10	Function keys
11	Fingerprint scanner
12	Keyboard button
13	Mode button
14	Enter button

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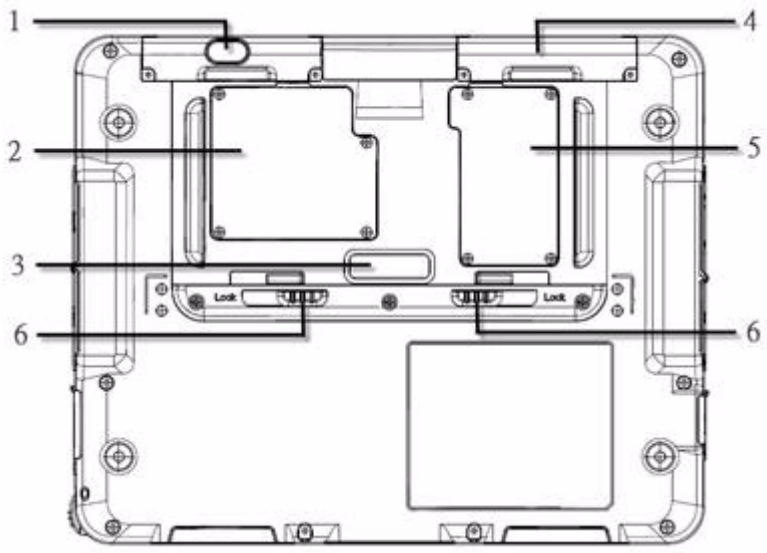
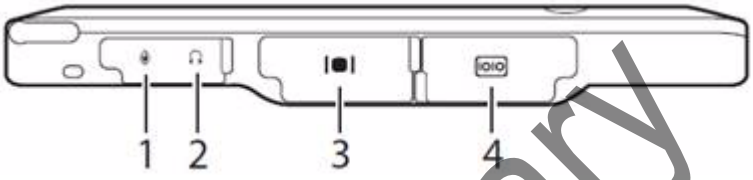
1.6.2 Rear View



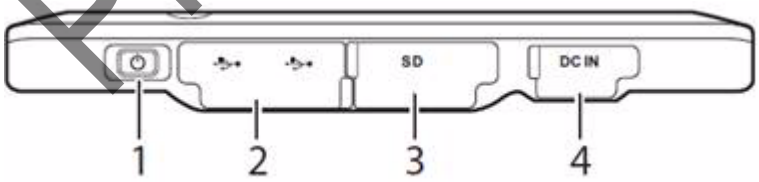
No.	Component
1	Left compartment ■ Holds the camera ■ Contains the barcode scanner connectors
2	WWAN module
3	External battery contacts
4	Right compartment ■ Contains connectors for MSR and RFID
5	mSATA door
6	External battery lock

1.6.3 Right View



No.	Component
1	Microphone jack
2	Headphone jack
3	VGA port
4	Serial port

1.6.4 Left View



No.	Component
1	Power button
2	USB ports (2)
3	SD card slot
4	DC-in jack

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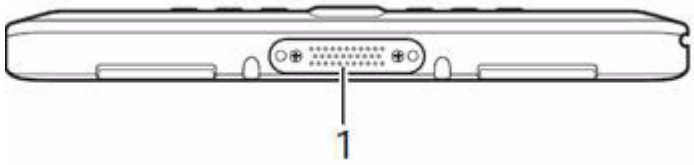
1.6.5 Bottom View



No.	Component
1	Docking connector

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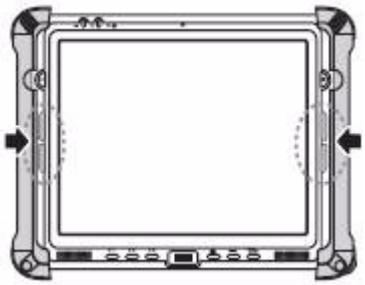
Chapter 2

Getting Started

2.1 Installing the Rubber Bumpers

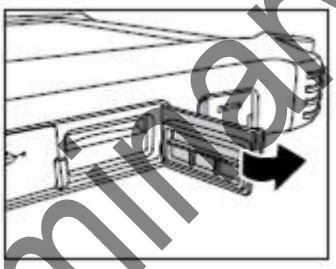
To protect the housing case of PWS-770, install the rubber bumpers.

1. Install the rubber bumpers on the left and right side of PWS-770.
2. Make sure the rubber bumpers are aligned and locked on the indents.



2.2 Removing the Rubber Bumpers

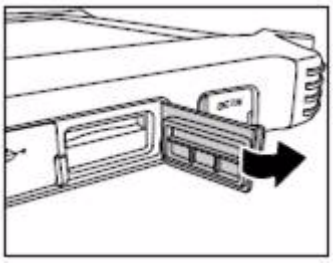
From the rear of the tablet PC, remove the rubber bumpers.



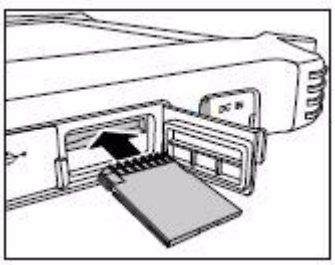
2.3 Inserting a Memory Card

You can insert an SD card to store data, which needs to be later transferred to another machine, or to simply expand the storage capacity of the PWS-770.

1. Open the SD card compartment cover.



2. Insert the SD card with the metal contacts facing upwards, until it clicks into place.



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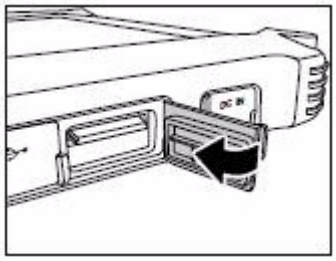
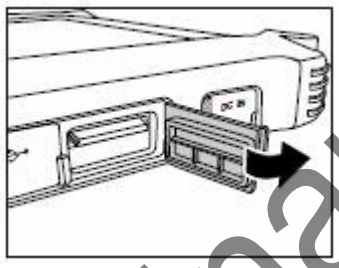
3. Close the memory card compartment cover.

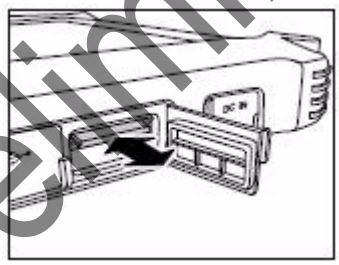


2.4 Removing a Memory Card

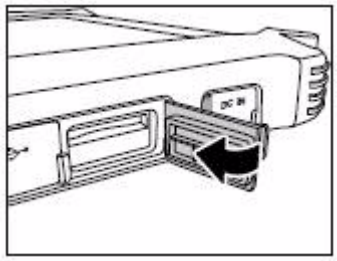
1. Open the SD card compartment cover.



2. Press the SD card inwards to eject it from the slot.



3. Remove the card and close the SD card compartment cover.



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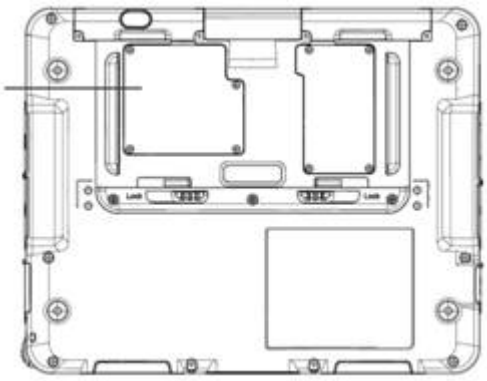
2.5 Installing a SIM

1. Make sure the system is turned off. Unscrew the WWAN module door.



2. Push and Open the SIM card cover.

3. Put the SIM card into the slot, with the metallic part facing down until it clicks into place.

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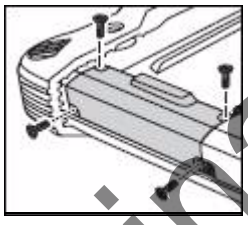
4. Close the SIM card cover and push back the SIM card cover.

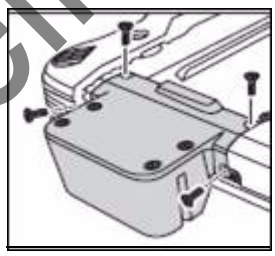
5. Screw the WWAN module door.

2.6 Installing an MSR (optional)

1. Make sure the system is turned off.



2. Unscrew the right compartment cover to remove.
3. Attach the MSR connector to the connectors inside the compartment.
4. Screw to secure the MSR module onto the tablet PC.PWS-770 User Manual



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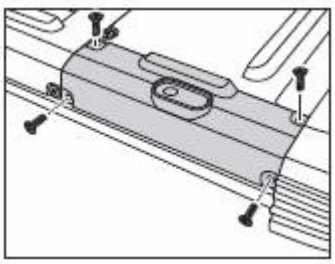
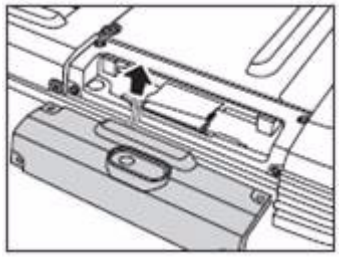
2.7 Installing a Scanner (optional)

The 1D or 2D barcode scanner module comes with a 2M CCD camera.

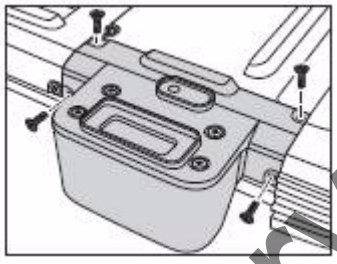
1. Make sure the system is turned off.
2. Unscrew the left compartment cover.



3. Remove the camera connector.



4. Attach the scanner connector to the connector inside the compartment.
5. Screw to secure the scanner module onto the tablet PC.



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Chapter 3

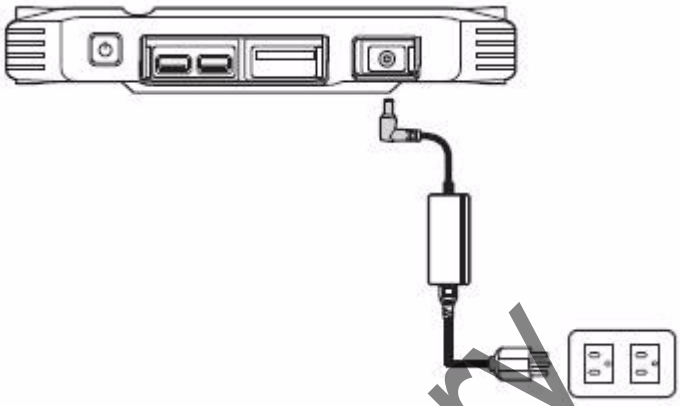
Making Connections

3.1 Connecting the Power

Before you can use your PWS-770, you must fully charge the battery. Connect the power adapter as shown and leave to charge for:

- A minimum of 2 hours when using the internal battery
- A minimum of 8 hours when a second battery is installed

Condition: The operation time is based on the LCD backlight at 50% and the average utilization of the system under 10%.

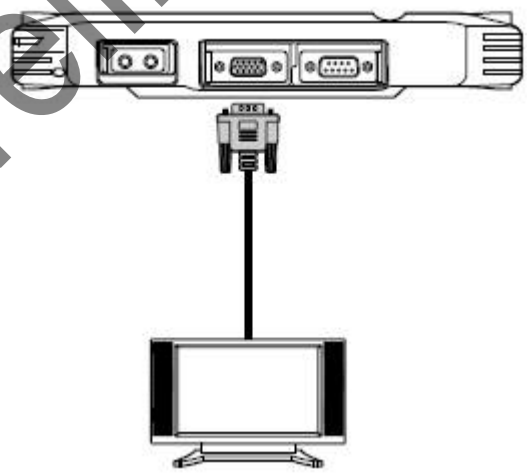


3.2 Connecting to a Monitor

You can connect the PWS-770 to an external monitor for enhanced viewing.

Connect one end of a VGA cable to the VGA port on the right side of the PWS-770.

Connect the other end to the VGA port on the monitor.



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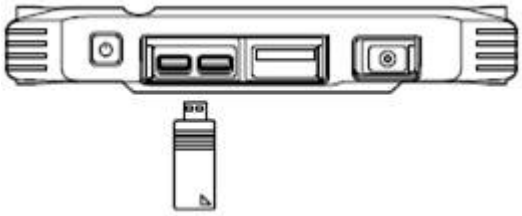
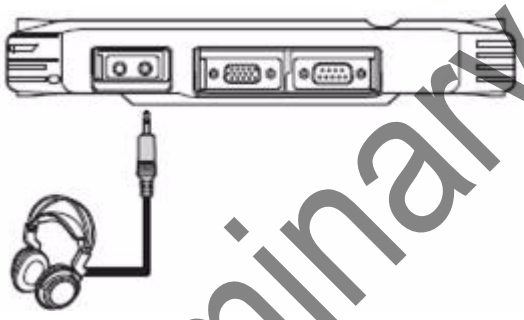
3.3 Connecting USB Devices

You can connect peripheral devices, such as a USB keyboard and mouse, as well as other wireless devices using the USB ports on the left side of the PWS-770.



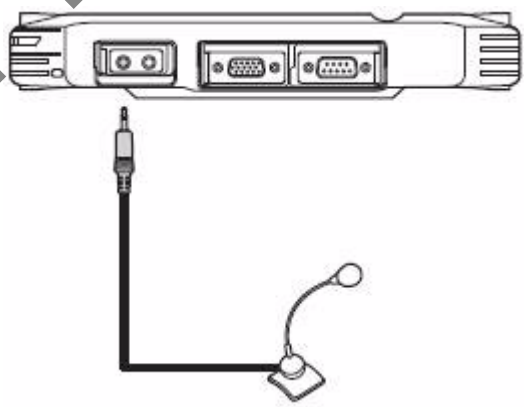
3.4 Connecting Headphones

You can connect a pair of headphones using the headphone jack on the right side of the PWS-770.



3.5 Connecting a Microphone

The PWS-770 features a built-in microphone, but you can still connect an external microphone if needed. Connect the microphone to the microphone jack on the right side of the PWS-770 as shown.



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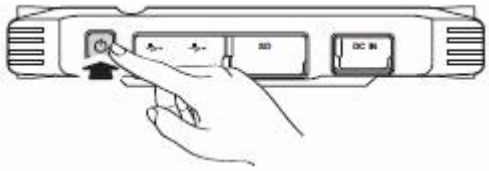
Chapter 4

Turning On

1. Press and hold the power button to turn on the PWS-770.



4.1 Controlling the PWS-770

4.1.1 Using the Touch Screen

The PWS-770 is equipped with touch screen technology, for ease of use when you are on the go. Simply tap the screen with your finger to select icons and run applications.

4.1.2 Using the Tap Function

When you tap on the screen with the a pen or stylus, it emulates click functions of a regular mouse.

- To emulate a left click single tap the screen once.
- To emulate a right click tap and hold the screen.
- To emulate a double click, tap the screen twice.

4.1.3 Calibrating the Touch Screen

To calibrate the touch screen, tap **Start > All Programs >PenMount Windows Universal Driver > Utility > PenMount Control Panel** to open **PenMount Control Panel**.

1. From PenMount Control Panel, highlight **PenMount 6000 RS232** under the **Device** tab. and tap **Configure**. The Device configuration screen opens.

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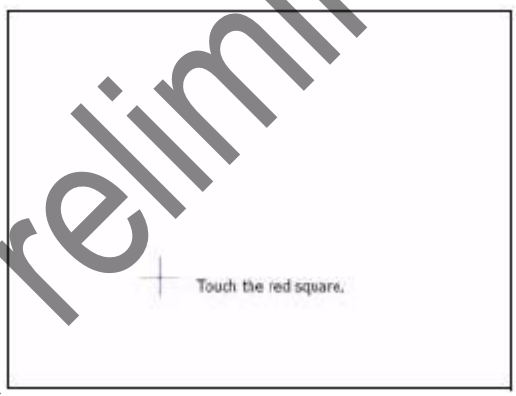
2. Tap the **Calibrate** tab and you will see two options:

- **Standard Calibration:** select this option to start 5 points Standard Calibration.
- **Advanced Calibration:** select this option to use 4, 9, 16, or 25 points to calibrate the screen. Check **Plot calibration data** to enable touch panel linearity comparison graph. The blue lines show linearity before calibration and black lines show linearity after calibration.

3. Touch the points as displayed onscreen using the pen.



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4.1.4 Using the Control Panel Buttons

The control panel buttons are located on the front side of PWS-770.
See below for a description of each button and its function.

Button	Name	Function
	Function	Press to access your favorite programs.
	Keyboard	Press to access the on-screen keyboard.
	Mode	Press to enable/disable mode.
	Enter	Press to emulate the Enter key.
	S1	When mode is enabled, press to decrease brightness setting When mode is disabled, functions as the F4 key; press to access your favorite program.
	S2	When mode is enabled, press to increase brightness setting. When mode is disabled, press to call up barcode function if available. Otherwise, functions as the F5 key.

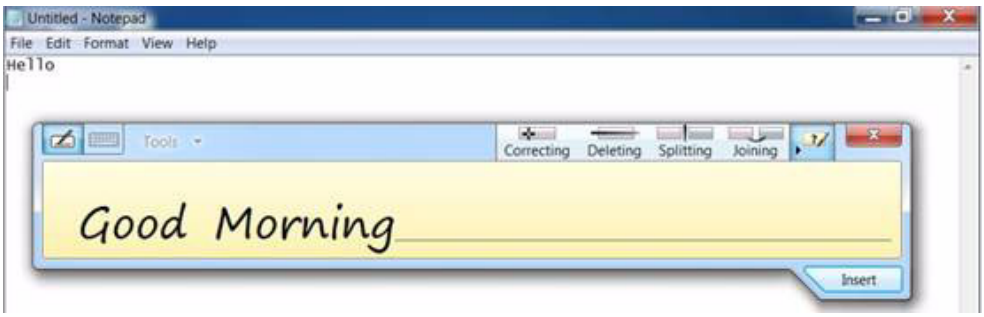
4.1.5 Using the On-Screen Keyboard

Press to bring up the on-screen keyboard.

Use your finger to tap and enter letters, numbers and symbols as you would with a regular keyboard. To type capital letters tap the lock icon on the on-screen keyboard.

To use handwriting, tap upper left button of On-Screen Keyboard.

Preliminary



4.1.6 Configuring the Function Buttons

The F1, F2, F3, S1 (F4) and S2 (F5) can be configured as shortcuts to access your favorite or frequently used programs.

1. Press the function button to which you want to assign a program shortcut to. The function button screen appears.
2. Tap to locate the program on the hard drive.
3. To remove a configured program, tap.
4. Tap **OK** to save all new settings.

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Once you have assigned a function to one of the buttons, you can change it at a later date by tapping on the **Mode** icon on the system tray.

Select **Function Key Setting** from the menu and follow the procedure described above from step 2 to make any changes.

4.1.7 Using the Mode Button

Press “Mode Button” to enable or disable mode.

When mode is enabled, press ìS1î and ìS2î to adjust the brightness setting.

When mode is disabled, “S1” functions as the F4 key while “S2” functions as the F5 key. If a barcode scanner is installed,”S2” functions as the barcode switch key.

4.1.8 Adjusting Screen Brightness

1. Ensure mode is enabled.
2. Press “S1” to decrease brightness, or “S2” to increase brightness.

4.1.9 Adjusting the Volume

1. Tap the Volume icon on the system tray.

2. Move the slide to adjust volume.

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Chapter 5

Wireless Connections

5.1 WiFi Connection

Note! *WiFi access requires a separate purchase of a service contract with a wireless service provider. Contact a wireless service provider for more information.*

The PWS-770 comes pre-loaded with WLAN module, you can send and receive signals to a WiFi network then synchronize files.

A wireless network can be added either when the network is detected or by manually entering settings information. Before doing these steps, determine if authentication information is needed.

1. Right-click the wireless connection icon in the notification area.
2. Select one of the wireless connections and click Connect.

3. You are prompted to enter a Security key for secure access. Contact the network administrator for this key.

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4. Enter the required Security key and then tap OK to connect.
5. The wireless connection is negotiated and you see the following screen.

The wireless connection icon in the notification area shows a connected status whenever a wireless connection is present.

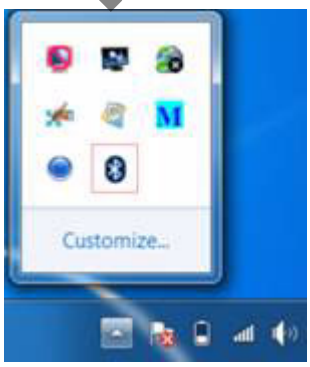
5.2 Bluetooth Connections

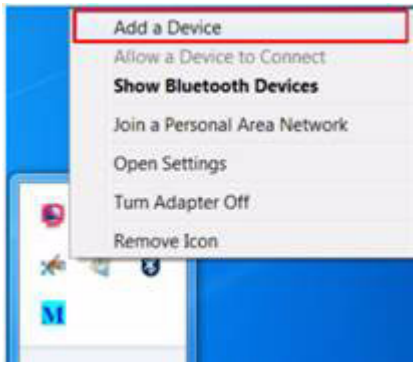
The PWS-770 comes with built-in Bluetooth functionality that allows you to connect and communicate with other Bluetooth-enabled devices.

5.2.1 Setting Up Bluetooth

Follow these instructions to set up a Bluetooth connection.

1. In notification area, tap Bluetooth logo and select Add a Device.





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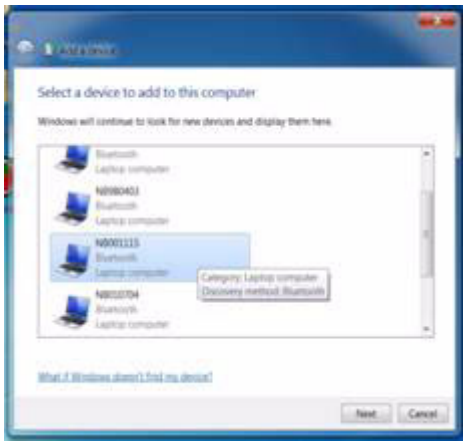
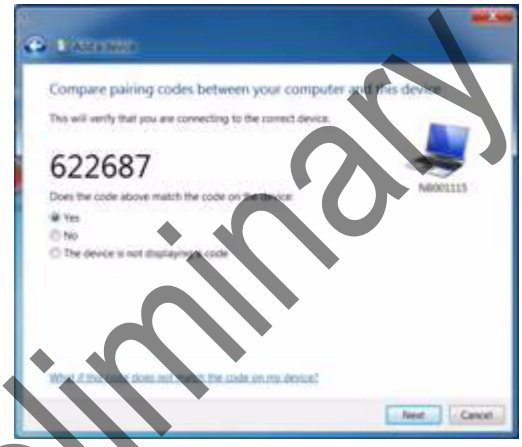
2. Select Bluetooth device and tap Next to add Bluetooth device.



3. Select Next for both PWS-770 and the blue tooth device after passkey is confirmed.



4. The Bluetooth device is successfully added into PWS-770.

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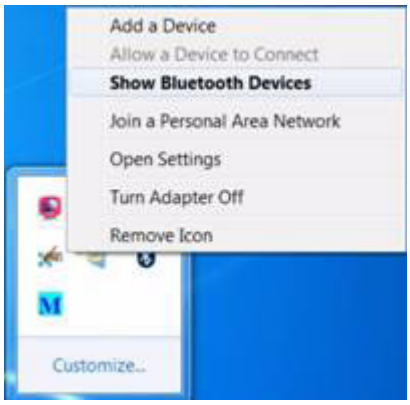
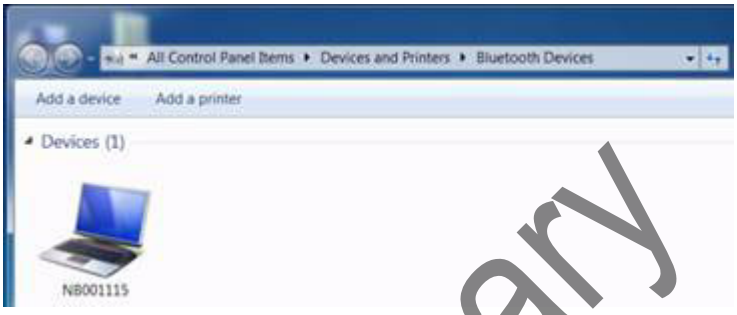
5. To view Bluetooth device added, tap Show Bluetooth Devices.





Note! *It is recommended that you use a passkey to prevent unauthorized access to your PWS-770.*

5.3 3G Module Connection (optional)

GPRS function is optional with PWS-770. It allows you to make 3G connection to the internet. See "Installing a 3G Module (optional)" on page 11 for installation instruction.

Note! *Before setting up GPRS, obtain the access point (AP) from your SIM card's network service provider.*

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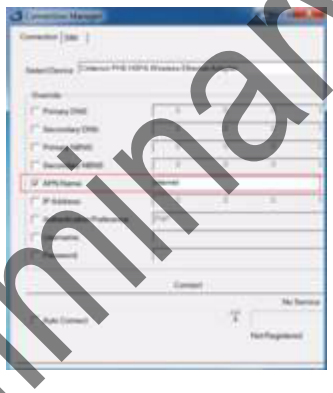
5.3.1 Setting Up 3G Module

1. Tap **PWS-770 driver > 3G_PH8 > PH8 Connection Manager > bin** to run the **connectionmanager** software.
2. On **Select Device**, select **Cinterion PH8 HSPA Wireless Ethernet Adapter**.

3. Check **APN Name**, then enter the access point name of your network service provider on the space. In this case, “internet” is the AP name.



4. Tap **Connect**.
5. When connected, signal strength is shown on the lower left corner of the Connection Manager window.

Note! *To avoid damage to the SIM card, insert the SIM card before you turn the power on and remove the SIM card after you turn the power off.*

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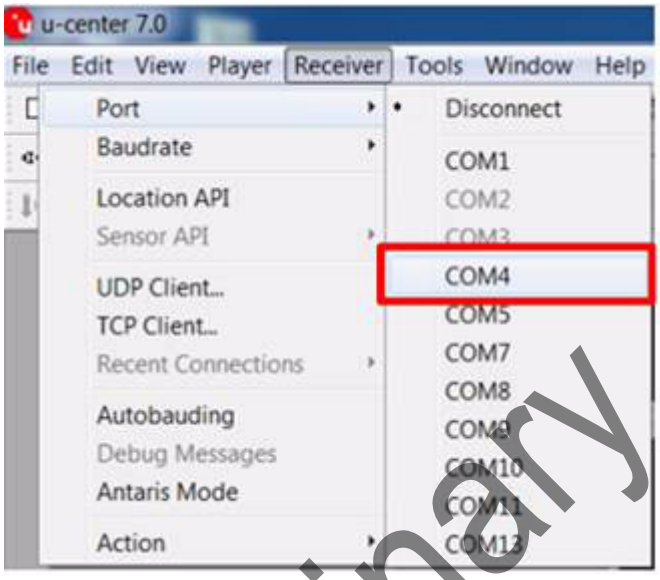
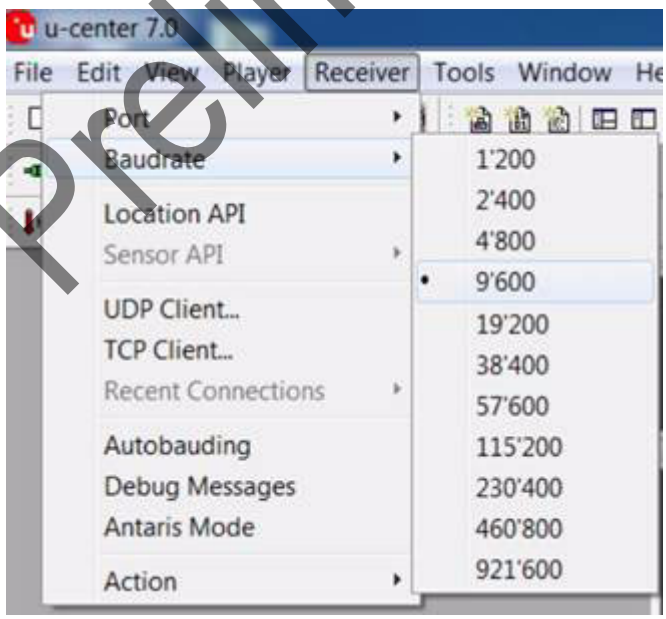
5.4 GPS Connection (optional)

GPS function comes optional with PWS-770. It allows you to view your GPS positions. The following illustration demonstrates how the GPS viewer operates.

1. In windows, tap **Start > All Programs > u-blox > u-center > u-center** to access GPS software u-center.
2. In u-center, tap **Receiver > Port > COM4**.



3. Make sure Baudrate is select to 9600.
   Receiver > Baudrate > 9’600



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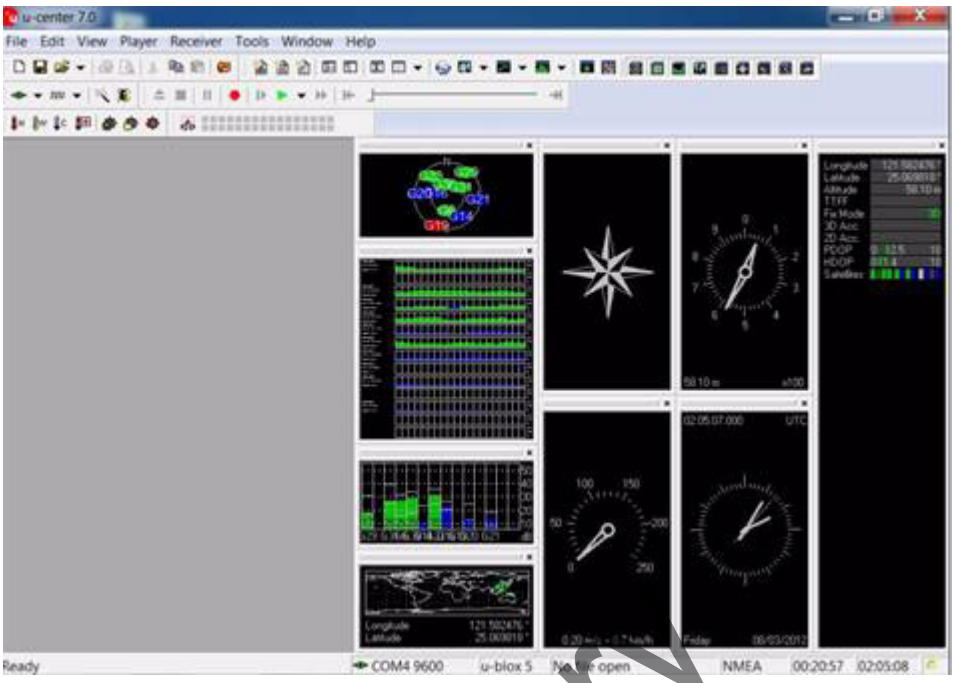
4. When satellites are detected, their positions are shown on the map.



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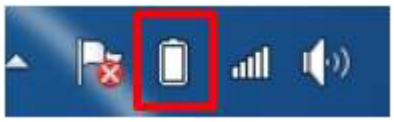
Chapter 6

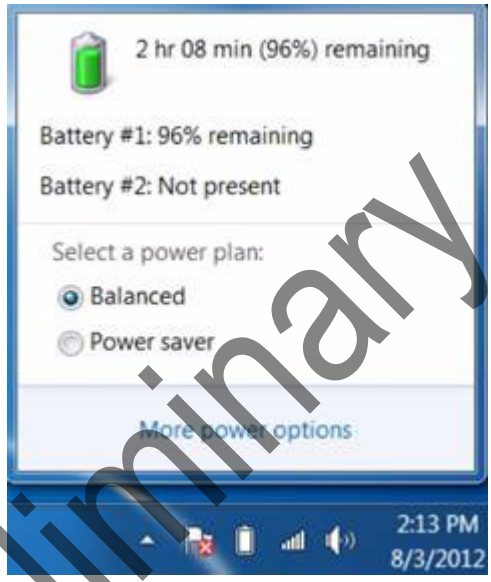
Advanced Settings

6.1 Checking Battery Status

As it is likely you will be using your PWS-770 when out and about, it is important that you monitor the battery status regularly, to ensure you do not run out of power at a critical moment. Double tap on the **Power** icon on the system tray to view detailed information.



The battery screen appears:



Balanced Automatically balanced performance with energy consumption.

Power saver Saves energy by reducing PWS-770's performance.

Note! *#1 battery indicates the status of the internal battery*

#2 battery indicates the status of the external battery. See "External Battery" on page 68.

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6.2 Maintenance

6.2.1 Maintaining the Battery

- Do not expose heat or attempt to disassemble the battery, and do not place the battery in water or in a fire.
- Do not subject the battery to strong impact, such as a blow from a hammer, or stepping on or dropping it.
- Do not puncture or disassemble the battery.
- Do not attempt to open or service the battery.
- Replace only with batteries designed specifically for this product.
- Keep the battery out of reach of children.
- Dispose of used batteries according to local regulations.

6.2.2 Maintaining the LCD Display

- Do not scratch the surface of the screen with any hard objects.
- Do not spray liquid directly on the screen or allow excess liquid to drip down inside the device.
- Do not place anything, such as food and drink, on the screen at any time to prevent damage to the screen.
- Clean the LCD display only with a soft cloth dampened with denatured alcohol or a proprietary LCD screen cleaner.

6.2.3 Cleaning the PWS-770

1. Turn off the PWS-770 and unplug the power cord.
2. Wipe the screen and exterior with a soft, damp cloth moistened only with water. Do not use liquid or aerosol cleaners on the screen, as these will discolor the finish and damage the screen.

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Appendix A

Specifications

A.1 Specifications

Feature	Description
Operating System	Windows 7 Professional /Embedded
Processor	Intel Atom N2600/1.6 GHz
Chipset	Intel® NM10
Memory	One SODIMM DDRIII 2 GB
Storage	Supports mSATA SSD 32 GB ~ 128 GB
Display	10.4” XGA TFT LCD
Touch Panel	4-wire resistive touch panel
Application Button	One Power button One software keyboard button One Mode button One Enter button Five Function programmable buttons for quick selection of applications
Communication	802.11b/g/n WLAN built-in with integrated antenna Bluetooth class 2, 4.0 built-in with integrated antenna GPS (Optional) 3.75G WWAN (Optional)
Camera	2M pixel CCD camera x 1 (default)
Main Battery	Rechargeable Li-ion smart battery, 1900mA, 3S1P Hot-Swap 2nd battery: External battery: 3S2P 11.1V 5000 mAh
Power Adapter	AC Adapter: AC 100V-240V 50/60Hz, 19V/3.42A/65W, Auto Sensing/Switching worldwide power supply Car Adapter: AC 120V-320V (Optional)
Security	1. Password security 2. Fingerprint scanner 3. TPM 1.2
I/O Port	USB 2.0 x 2 Serial port RS-232 x 1 VGA port x 1 Audio in jack x 1 Audio out Jack x 1 Internal mono microphone x 1 DC-in x 1 Docking port (32-pin; USB/PCIE/DC) SIM slot (with WWAN option)
Audio Output	1 watt speaker x 2
Expansion Port	SD memory card x 1 (SD 2.0/SDHC)
Physical	264 x 213 x 18mm
Approx. 1.2Kg	
Environment	Operating Temperature: - 0°C to 40°C (Condition: Charge) - 10°C to 50°C (Condition: discharge) Storage Temperature -20°C to 60°C Operating Humidity 5% ~ 95% Rugged Rating IP54 3ft drop
Certification	CE, FCC

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Optional Device / Accessories	1D / 2D Barcode Scanner 5M Camera MSR 1+2+3 track RFID 13.56M GPS Module Desk Docking Hand Strap Carry bag VESA Mount External Battery

LED Status

DUT on/off	AC adapter in	Internal Battery	Green LED	Orange LED	Remark
Off	×	✓	off	off	System Off
Off	✓	✓	off	Blinking	Battery charging (Orange LED light 2 sec, dark 2 sec)
Off	✓	✓	off	off	Battery charge full
ON	×	✓	Static	off	System ON (Battery > 30 %)
ON	✓	✓	off	Blinking	Battery charging (Orange LED light 2 sec, dark 2 sec)
ON	✓	✓	Static	off	Battery charge full
ON	×	✓	off	On	Battery Low (< 30 %)
ON	×	✓	off	Blinking	Battery Low (< 10 %) (Orange LED light 0.2 sec, dark 0.8 sec)

A.2 Optional Accessories

A.2.1 External Battery

You can use an external battery to extend the power of your tablet PC.

Battery specification: 5000mAh 11.1V

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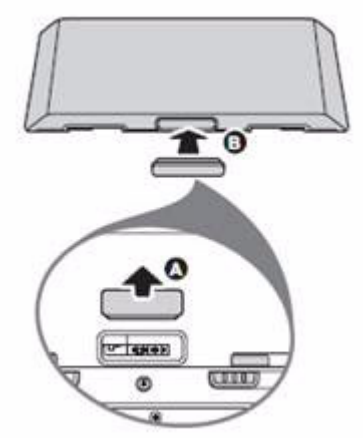
A.2.1.1 Installing the External Battery

1. Remove the external battery contacts cover from the tablet PC (A).
2. Insert the contacts cover on the external battery (B).



3. Align and insert the battery on the tablet PC (C).
4. Lock to secure the battery in place (D).

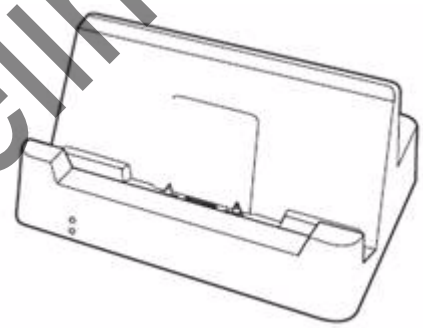
A.2.1.2 Removing the External Battery

Repeat the above steps in reverse order to remove the battery.

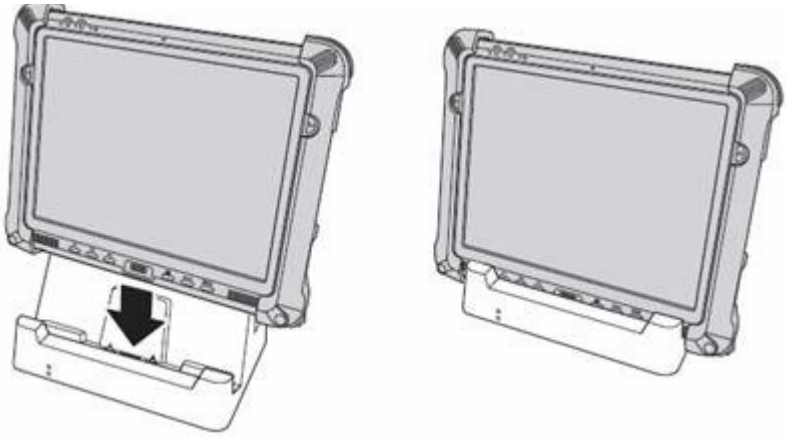
A.2.2 Tablet PC Docking

You can use the docking stand to dock the tablet PC when you are at your home or on your office desk. When docked, you can charge both the internal and external batteries or transfer data from your tablet PC to another PC.

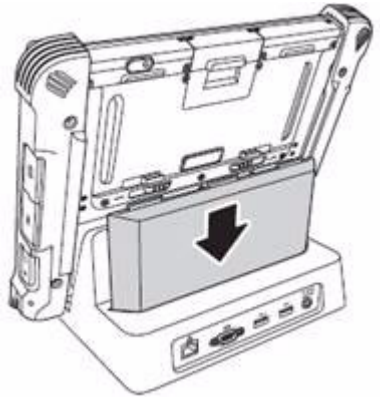
Preliminary



Attach the PWS-770 to the docking stand as shown.



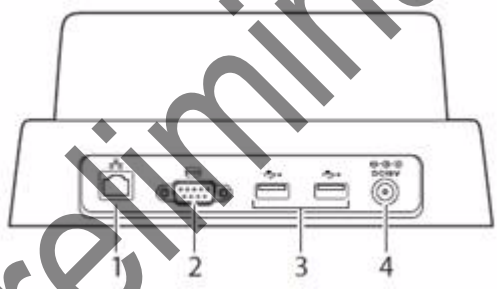
To charge the external battery, attach the battery to the docking stand as shown below.



Note! *The external battery can also be charged when installed on the tablet PC.*

A.2.2.1 Docking Connectors

See below for the rear view of the docking and a description of all ports and connectors.



No.	Component	Function
1	LAN port	Connect an RJ-45 cable to access LAN connection.
2	Serial port	Connect a serial cable to connect to another PC.
3	USB ports	Connect USB connectors to transfer data.
4	DC-IN	Connect the AC adapter to charge the battery.

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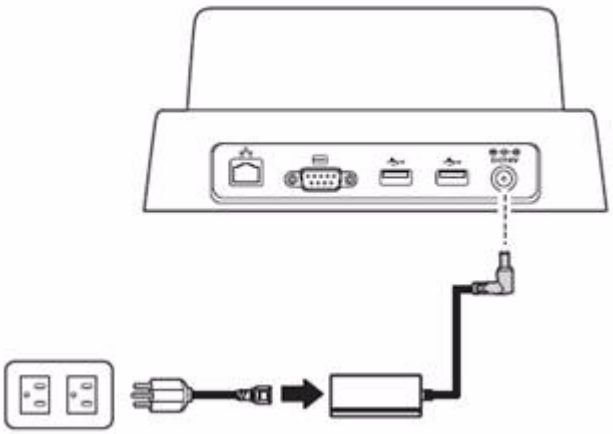
A.2.2.2 Connecting Power to the Docking

Connect the AC power adapter to the docking and the mains as shown below.



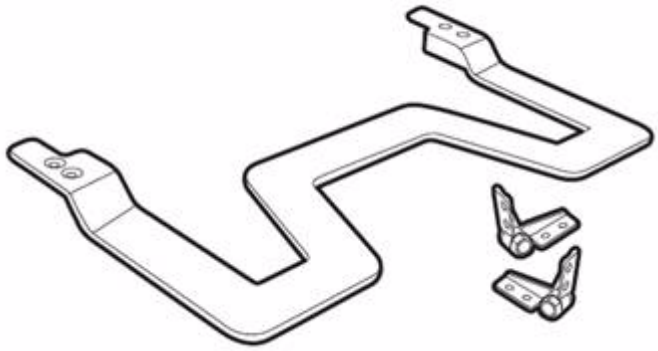
A.2.2.3 Docking Specifications

Feature Description

Feature	Description
Product Name	PWS-770 Tablet PC Docking
Model Number	PWS-770C
External I/O Interfaces	One LAN port One RS-232 Two USB 2.0 host connectors One DC-in
Power Adapter	Universal AC 90V ~ 265V, 47~63Hz input; 19V,3.16A output
Physical Size	230 x 154 x 252 mm
Environment	Operating Temperature -20°C to 60°C Storage Temperature -40°C to 70°C Operating Humidity 10% ~ 95%
Certification	CE, FCC

A.2.3 Adjustable Stand

You can use the adjustable stand to provide desk support when you are at home or in your office.



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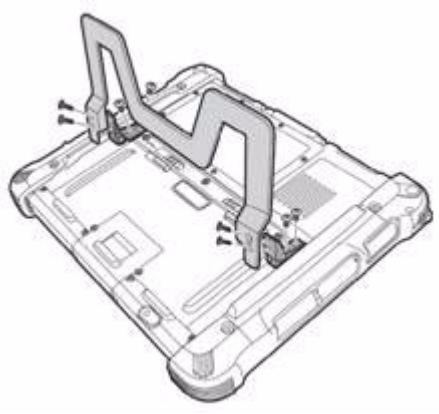
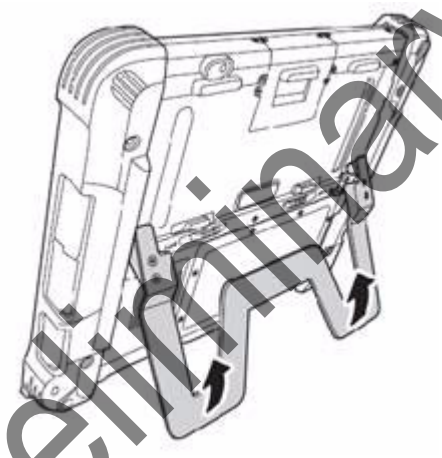
A.2.3.1 Attaching the Adjustable Stand

1. Fasten four screws to attach the two stand brackets to your Tablet PC.
2. Fasten the four screws to attach the stand to the brackets.



3. Pull to adjust the stand to desirable angle.



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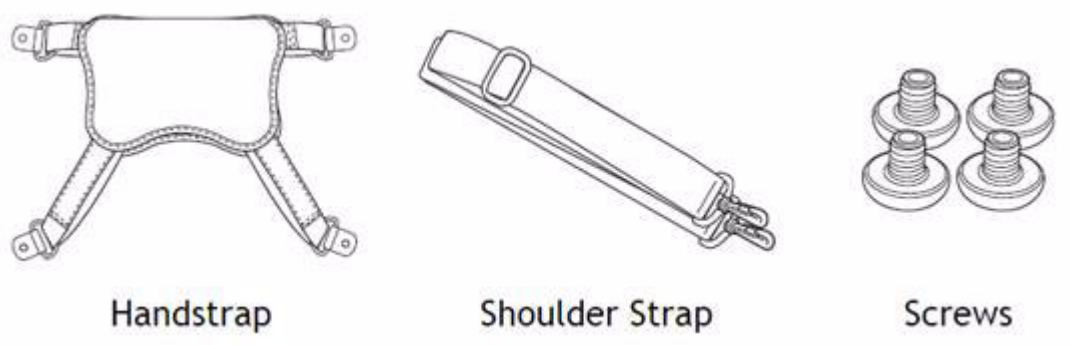
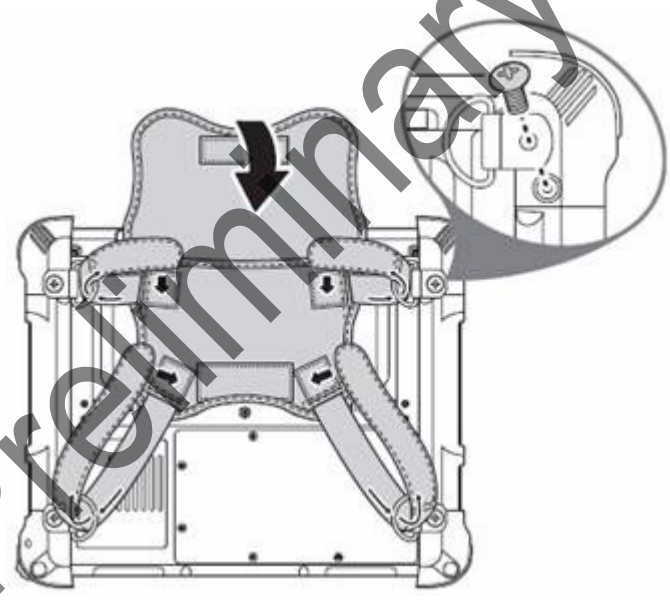
A.2.4 Handstrap and Shoulder Strap

A detachable handstrap and shoulder strap are provided to carry your Tablet PC securely and safely. You can use the supplied handstrap and shoulder strap separately or together to carry the PWS-770 when you are outside your home or office.



When using the handstrap and shoulder strap separately:

- Attach the handstrap to the rear of your tablet PC using the four short screws. Ensure the straps and the flap are securely attached.



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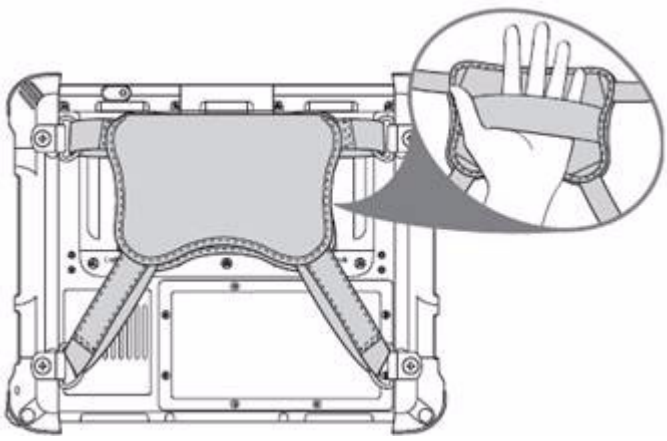
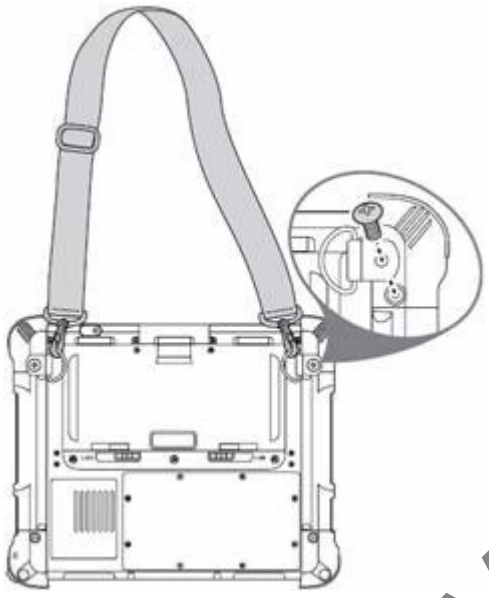
The handstrap makes it easy to carry the device on one hand.

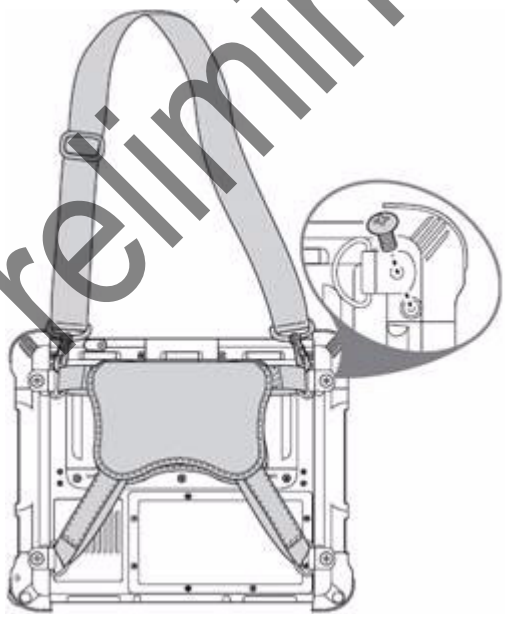


- Attach the shoulder strap to the rear of your tablet PC using two screws as shown.



When using the handstrap and shoulder strap together:

- Attach the handstrap to the rear of your tablet PC using the four screws. Then hook the shoulder strap as shown.



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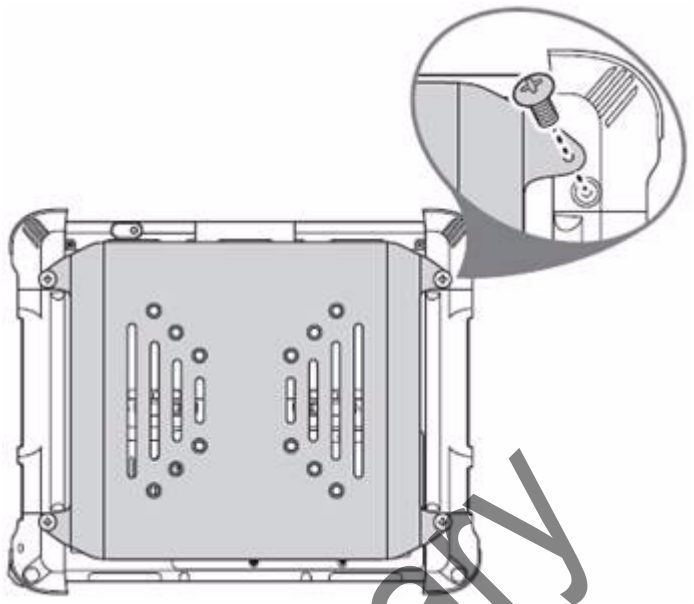
A.2.5 Vesa Mount

Vesa mount can be used with a variety of alternate mounting solutions such as wall mounts.

- Install the vesa mount by screwing on the screws as shown.



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